

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

To:

SCIENCE & TECHNOLOGY LAW GROUP
Attn. OSMAN, R.
75 Denise Drive
Hillsborough, CA 94010
UNITED STATES OF AMERICA

Date of mailing
(day/month/year)

09/03/1999

Applicant's or agent's file reference

B98-006/PCT

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/US 98/ 22164

International filing date

(day/month/year)

20/10/1998

Applicant

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
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Authorized officer

Sandra De Jong-van Dam

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference B98-006/PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 98/ 22164	International filing date (day/month/year) 20/10/1998	(Earliest) Priority Date (day/month/year) 20/10/1997
Applicant THE REGENTS OF THE UNIVERSITY OF CALIFORNIA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of Invention is lacking (see Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

ROBO: A FAMILY OF POLYPEPTIDES AND NUCLEIC ACIDS INVOLVED IN NERVE GUIDANCE

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

2



None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 98/ 22164

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claim 9, in as far as it concerns an in vivo method, are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/22164

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/18 C07K14/475 A61K38/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EMEST DATABASE Accession number AA499193 03-JUL-1997 (Rel. 52, Created) Marra M. ET AL. XP002094384	1,8
Y	see the whole document ---	2-7,9
Y	TEAR G ET AL: "To cross or not to cross: a genetic analysis of guidance at the midline." PERSPECT DEV NEUROBIOL, 1993, 1 (4) P183-94, XP002094379 UNITED STATES see page 191, left-hand column, paragraph 2 - page 193, left-hand column, paragraph 2 --- -/--	2-7,9



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

23 February 1999

Date of mailing of the international search report

09/03/1999

Name and mailing address of the ISA

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Authorized officer

Gurdjian, D

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EMEST DATABASE Accession number AA263962 21-MAR-1997 (Rel. 51, Created) Harvey D. ET AL. XP002094385 see the whole document ---</p>	1,8
X	<p>EMEST DATABASE Accession number C68275 20-SEP-1997 (Rel. 52, Created) Kohara Y. ET AL. XP002094386 see the whole document ---</p>	1,8
X	<p>EMEST DATABASE Accession number H52936 22-SEP-1995 (Rel. 45, Created) Hillier L. ET AL. XP002094387 see the whole document ---</p>	1,8
X	<p>EMEST DATABASE Accession number H19148 02-JUL-1995 (Rel. 44, Created) Hillier L. ET AL. XP002094388 see the whole document ---</p>	1,8
X	<p>KOŁODZIEJ PA ET AL: "FRAZZLED ENCODES A DROSOPHILA MEMBER OF THE DCC IMMUNOGLOBULIN SUBFAMILY AND IS REQUIRED FOR CNS AND MOTOR AXON GUIDANCE" CELL, 1996, 87, 197-204, XP002094380 see the whole document ---</p>	1-9
X	<p>WO 95 13367 A (UNIV CALIFORNIA ;UNIV COLUMBIA (US)) 18 May 1995 see page 43 - page 54 ---</p>	1-9
A	<p>SEEGER M ET AL: "Mutations affecting growth cone guidance in Drosophila: genes necessary for guidance toward or away from the midline." NEURON, MAR 1993, 10 (3) P409-26, XP002094381 UNITED STATES see abstract see page 419, right-hand column, paragraph 4 - page 425 ---</p>	2-7,9
	<p>---</p> <p style="text-align: center;">-/--</p>	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/22164

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9513367 A	18-05-1995	US 5565331 A	15-10-1996
		CA 2174971 A	18-05-1995
		EP 0804564 A	05-11-1997
		JP 9509305 T	22-09-1997

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	TEAR G ET AL: "commissureless controls growth cone guidance across the CNS midline in Drosophila and encodes a novel membrane protein." NEURON, MAR 1996, 16 (3) P501-14, XP002094382 UNITED STATES see the whole document ---	1-9
P,X	KIDD T ET AL: "Roundabout controls axon crossing of the CNS midline and defines a novel subfamily of evolutionarily conserved guidance receptors." CELL, JAN 23 1998, 92 (2) P205-15, XP002094383 UNITED STATES see the whole document -----	1-8